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### **REMARKS**

Claims 1-22 and 24-27 are currently pending in the application. By this amendment, claims 1, 4, 7, 8, 11 and 18-22 are amended and claims 24-27 are added for the Examiner's consideration. The above amendments do not add new matter to the application and are fully supported by the specification. For example, support for the amendments is provided at Figure 1 of the specification. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

#### **35 U.S.C. §102 Rejection**

Claims 1-11, 14-16 and 18-22 were rejected under 35 U.S.C. §102(e) for being anticipated by U. S. Patent No. 6,189,702 issued to Bonnet ("BONNET"). This rejection is respectfully traversed.

#### **Independent Claim 1 and Dependent Claims 2-7 and 9**

BONNET does not disclose or suggest a "package divert mechanism... comprising... a frame member adapted for use with an existing conveyor system for transporting an item in an original direction, said frame member including an entrance and a plurality of exits", as recited in claim 1. In this regard, the portions of BONNET applied in the outstanding Official Action only include a single set of two vertical columns 30, which by definition can have only a single entrance and a single exit. Accordingly, the overhead mounted sorter disclosed in BONNET does not disclose or suggest the "package divert mechanism" in claim 1, which includes "a frame member... including an entrance and a plurality of exits".

Applicants note that the defined entrance and exits of the frame member recited in claim 1 enables the present invention to achieve benefits that cannot be achieved

using the two vertical columns 30 disclosed in BONNET. In this regard, although the structure of new claims 26 and 27 is not required in claim 1, from which claims 26 and 27 depend, the structure and functionality of new claims 26 and 27 detail an embodiment that is not possible using the two vertical columns 30 disclosed in BONNET. In particular, as recited in claims 26 and 27, the entrance and exits may be defined by legs and hinges that enable hoods to be mounted to the legs via the hinges. Of course, it is impossible to mount the recited "first hood", the "second hood", the "third hood" and the "fourth hood" recited in claim 27 to only two vertical columns 30 as in BONNET, as the structure of BONNET only includes a single element 32 which could be used as a hinge between the columns 30. Accordingly, although the features of claims 26 and 27 are not required in the invention recited in claim 1, claims 26 and 27 further define a structure that cannot be achieved by BONNET.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1. Applicants further submit that each of claims 2-7 and 9 is allowable at least for depending, directly or indirectly, from an allowable claim 1, as well as for additional reasons related to their own recitations.

#### Independent Claim 8

BONNET does not disclose or suggest that a package divert mechanism comprises "an over current sensor for determining whether a current associated with an actuator exceeds a threshold limit", as recited in claim 8. In this regard, the outstanding Official Action asserts that BONNET discloses an "actuator" by the reversible servo motor 42. However, regardless of whether the reversible servo motor 42 is considered an actuator, BONNET does not disclose an "over current sensor", let alone an "over current sensor for determining whether a current associated with an actuator exceeds a threshold limit". An actuator simply cannot be equated to such an over current sensor.

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Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 8.

Independent Claim 10

Additionally, BONNET does not disclose or suggest, in the claimed combination, that a package divert mechanism comprises

“a plurality of sensors associated with the moveable diverting mechanism, wherein the plurality of sensors include: at least one home sensor for detecting a home position of the moveable diverting mechanism; at least one over travel sensor for detecting an over travel position of the moveable diverting mechanism; and at least one photosensor for detecting a flow of the items”.

In this regard, the outstanding Official Action asserts that BONNET discloses the “home sensor” at col. 10, lines 35-67. However, while BONNET discloses that the paddle 100 is driven from a “first ready position R1”, this portion of BONNET does not disclose that the position R1 is a “home position”, let alone “at least one sensor for detecting a home position of the moveable diverting mechanism”. Further, the outstanding Official Action asserts that BONNET discloses the “travel sensor” at element 204. However, element 204 in BONNET is an “over-the-belt optical reader” upstream of the sorting device that optically reads destination indicia on packages. Accordingly, element 204 in BONNET is not “at least one over travel sensor”, and BONNET does not disclose or suggest “at least one over travel sensor for detecting an over travel position of the moveable diverting mechanism”.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 10.

Independent Claim 11

Moreover, BONNET does not disclose or suggest “momentary contacts which provide an input signal to control the movement of the moveable diverting mechanism”, as recited in claim 11. In this regard, the outstanding Official Action asserts that BONNET discloses “momentary contacts” at elements 212, 210. However, element 212 is a keyboard, and not a “momentary contact”. Further, elements 210 are “rotary belt encoders 210... positioned to measure the displacement of each conveyor”. Accordingly, BONNET does not disclose or suggest “momentary contacts”, let alone “momentary contacts which provide an input signal to control the movement of the moveable diverting mechanism”.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 11.

Independent Claim 14 and Dependent Claims 15 and 16

Additionally, BONNET does not disclose or suggest, in the claimed combination, “a frame having an entrance and a plurality of exits” or “a gliding mechanism... adapted to move between opposing exits of the plurality of exits”, as recited in claim 14. Rather, the portions of BONNET applied in the outstanding Official Action only include a single set of two vertical columns 30, which by definition can have only a single entrance and a single exit. Accordingly, the overhead mounted sorter disclosed in BONNET does not disclose or suggest the bi-directional divert mechanism recited in claim 14, which includes “a frame having an entrance and a plurality of exits”.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 14. Applicants further submit that claims 15 and 16 are allowable at least for depending, directly or indirectly, from an allowable claim 14.

Independent Claim 18 and Dependent Claims 19-21

BONNET does not disclose “locating a first home position and a second home position of a diverting mechanism” or “positioning the diverting mechanism at one of the first home position and the second home position”, as recited in claim 18. In this regard, and as noted above, BONNET discloses that a paddle 100 is driven from a “first ready position R1”. However, BONNET does not disclose that the first ready position R1 is a “first home position”.

Furthermore, BONNET does not disclose “controlling the diverting mechanism in accordance with the diverting direction to divert an item in either a first exit or a second exit”. Rather, as noted above, BONNET has, by definition, only a single exit between the two vertical columns 30.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 18. Applicants further submit that claims 19-21 are allowable at least for depending, directly or indirectly, from an allowable independent claim 18, as well as for additional reasons related to their own recitations.

Independent Claim 22

As noted above with respect to claim 18, BONNET does not disclose or suggest

“locating a first home position and a second home position of a diverting mechanism” or “positioning the diverting mechanism at one of the first home position and the second home position”,

as recited in claim 22.

Furthermore BONNET does not disclose or suggest any reason for suspending movement of the paddle 100, and only discloses that the conveyor is stopped “[s]hould paddle 260c not be in a ready position S3”. Accordingly, BONNET further does not disclose or suggest any of the reasons recited in claim 22 for “suspending movement of

the diverting mechanism", i.e., "based on... a detection of an item being jammed; a detection of an item exceeding a threshold physical characteristic limit; a detection that the diverting mechanism exceeds a travel limit; and a detection that an operator has open access to the diverting mechanism".

Additionally, and as noted above with respect to claim 8, BONNET does not disclose any feature of detecting an "over current", let alone that a "detection of the jammed item and the detection of the item exceeding a threshold physical characteristic limit is based on a detection of an over current of an actuator which moves the diverting mechanism", as recited in claim 22.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 22.

In view of the herein-contained amendments and remarks, Applicants respectfully request that the rejection of claims 1-11, 14-16 and 18-22 under 35 U.S.C. §102 be withdrawn.

### **35 U.S.C. §103 Rejections**

#### Dependent Claims 12, 13 and 17

Claims 12 and 17 were rejected under 35 U.S.C. §103(a) for being unpatentable over BONNET in view of U. S. Patent No. 3,246,733 issued to Torbet, et al. ("TORBET"). Claim 13 was rejected under 35 U.S.C. §103(a) for being unpatentable over BONNET in view of TORBET, and further in view of U.S. Patent No. 6,036,128 issued to Cramer ("CRAMER"). These rejections are respectfully traversed.

In this regard, the outstanding Official Action acknowledges that "Bonnet... fails to show hoods". However, the outstanding Official Action asserts that it would have been obvious to modify the teachings of BONNET with safety hoods 26 shown in

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TORBET. Applicants respectfully submit that the outstanding Official Action is in error. In this regard, there is no teaching that the conveyors in BONNET around the columns 30 and vertical rail 32 are particularly unsafe and in need of hoods. Accordingly, the alleged motivation to modify BONNET (i.e., "in order to provide for a safety feature for the conveyor system") is not a proper motivation taught by the references. Rather, the only motivation to modify BONNET in the manner necessary to obtain the invention recited in claims 12 and 17 is the Examiner's improper motivation to obtain Applicants' claims in hindsight.

Furthermore, with respect to claim 17, and as set forth above, the overhead mounted sorter for conveyors of BONNET does not disclose or suggest "a frame having an entrance and a plurality of exits" or "a gliding mechanism... adapted to move between opposing exits of the plurality of exits". In this regard, Applicants submit that the rejection of claim 17 improperly relies on an interpretation of BONNET that assumes these features to be disclosed.

Furthermore, TORBET does not disclose placing a hood 26 at an entrance and each exit. Rather, TORBET appears to contain no disclosure in this regard other than the generic use of a hood. Accordingly, even the combination of BONNET and TORBET would not obtain the invention recited in Applicants' claims. At least for each of the reasons set forth herein, Applicants respectfully request that the rejection of claims 12 and 17 over BONNET in view of TORBET be withdrawn.

Applicants additionally submit that claim 13 is allowable at least for depending, directly or indirectly, from an allowable independent claim 12, as well as for additional reasons related to its own recitation. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 13 over BONNET in view of TORBET, and further in view of CRAMER (U.S. Patent No. 6,038,128).

Accordingly, at least for each of the reasons set forth above, as well as for the herein-contained amendments, Applicants respectfully request reconsideration and withdrawal of each of the rejections of claims now pending.

### **Newly Added Claims**

Claims 24-27 are added for the Examiner's consideration. These claims are well supported in the specification, and are shown in at least Figure 1. Claims 24-27 are dependent claims and should be allowed for the reasons stated above. These claims should also be allowed on their own merits. For example, none of the references show or suggest the movable diverting mechanism includes a blade mechanism extending from the frame member to divert the item in either the first direction or the second opposing direction or an excessive current associated with the actuator indicates that the existing conveyor system should be stopped, in combination with the base independent claims. Additionally, none of the reference show the frame configuration or hoods, in combination with the remaining elements of the base independent claim.



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CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 19-0089.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', with a stylized, overlapping loop structure.

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